



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,586	11/05/2003	C. Paul Christensen	MR2799-8/DIV.	7598
7590 11/08/2006 ROSENBERG, KLEIN & LEE SUITE 101 3458 ELLICOTT CENTER DRIVE ELLICOTT CITY, MD 21043			EXAMINER JOHNSON, JONATHAN J	
			ART UNIT 1725	PAPER NUMBER

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,586

Applicant(s)

CHRISTENSEN ET AL.

Examiner

Jonathan Johnson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) 14-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-13 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 11-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,932,119 (Kaplan) in view of US 5,080,752 (Kabacoff). Kaplan teaches a method of laser marking a gemstone comprising the steps of: (a) generating a laser pulse (abstract); (b) focusing said laser pulse onto a surface of a gemstone for creating a marking zone (col. 5, ll. 35-40) (c) displacing said surface of said gemstone with respect to said focused laser pulse along three orthogonal axes (col. 4, ll. 40-60); wherein said step of displacing said surface of said gemstone with respect to said focused laser pulse includes the translation of said gemstone with respect to said focused laser pulse along a predetermined path (col. 4, ll. 30-67 and col. 18-19); wherein said displacing of said surface of said gemstone with respect to said focused laser pulse includes translation of focusing optics along a predetermined path (col. 4, ll. 30-67 and col. 18-19); wherein said step of generating a laser pulse is controlled through a computer control system in electrical communication with a pulsed laser, said computer control system allowing a user to selectively control said pulse duration (col. 4, ll. 30-67); wherein a computer control system is in electrical communication with a displacement means for displacing said gemstone, said computer control system allowing a user to selectively input and control said predetermined path

Art Unit: 1725

(col. 4, ll. 30-67 and col. 18-19); wherein a computer control system in electrical communication with focusing optics allows a user to selectively input and control said predetermined path (col. 4, ll. 30-67 and col. 18-19). Kabacoff teaches a laser capable of marking a gemstone using 1 ns pulse (col. 3 ll. 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the laser of Kaplan to utilize a nanosecond laser in order effectively blow out pieces of the gemstone (col. 3, ll. 45-67).

Response to Arguments

Applicant argues neither Kaplan does not teach the claim limitation "between .01 to 1 nanosecond." The examiner disagrees. Kaplan teaches 1 nanosecond at col. 3, ll. 1-5.

Applicant next argues neither Kaplan or Kabacoff teach converting the graphite into a marking zone. The examiner disagrees. "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968). In the instant case, the prior art teaches applying a laser having the claimed pulse duration to a claimed gemstone. Thus, it is the examiner's position that the claimed graphite conversion would necessarily be present in the combined invention. When the examiner has reason to believe that functional language asserted to be critical for establishing novelty in claimed subject matter may, in fact be an inherent characteristic of the prior art, the burden of proof is shifted to the applicant to prove that the subject matter shown in the prior art does not possess the characteristics relied upon. *In re Fitzgerald et al.* 205 USPQ 594.

Art Unit: 1725

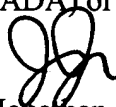
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177.

The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jonathan Johnson
Primary Examiner
Art Unit 1725

jj